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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/527,410	03/16/2000	Bing Lin Yang	YKI-0034	1559
23413 7590 10/01/2008 CANTOR COLBURN, LLP 20 Church Street 22nd Floor Hartford, CT 06103				
EXAMINER BAISA, JOSE LITO SASIS				
ART UNIT 2832		PAPER NUMBER		
NOTIFICATION DATE 10/01/2008		DELIVERY MODE ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

[usptopatentmail@cantorcolburn.com](mailto:usptopatentmail@cantorcolburn.com)

**Office Action Summary****Application No.**

09/527,410

**Applicant(s)**

YANG, BING LIN

**Examiner**

JOSELITO BAISA

**Art Unit**

2832

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 March 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/C2)
- Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Objections***

Claim 8 is objected to because of the following informalities: Line 3 recites "insert gas", which should have been "inert gas". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-5, 8, 9 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones [2457102] in view of Kozlowski [3906273].

Regarding claims 1, 2, 5 and 9, Jones discloses a pair of lead terminals (3, 4), each having a lead portion and a broadened tip forming a discharge electrode (1, 2), at least one broadened tip having a projected or patterned surface [Col. 5, Lines 1-5]; sealing spacers (6, 7) fixed on the lead portion of lead terminal (3, 4); a one piece cylindrical housing 5; the discharge electrodes (1, 2) held in the housing 5 facing one another with a predetermined distance therebetween; and wherein the lead terminals (3, 4) with sealing spacers thereon are adjustable within the cylindrical housing 5 before being fixed airtightly thereto such that the distance between the discharge electrodes (1, 2) may be varied and set as desired [Col. 3, Lines 19-45, Figure 1].

Jones discloses the instant claimed invention discussed above except for the sealing spacer are fitted and fixed to an inside wall of said housing and are inserted from open ends on both sides of said housing into an interior of said housing.

Kozlowski discloses cylindrical (claim 5) sealing spacers(1, 2) with central fitting through -hole (where leads are inserted, as required by claim 9) fitted and fixed to an inside wall of housing 5 and are inserted from open ends on both sides of housing 5 into an interior of the housing 5 [Col. 2, Lines 57-62, Figure 1].

It would have been obvious to one having ordinary skill in the art at the time of the invention to use sealing spacer that are fitted and fixed to an inside wall of the housing as taught by Kozlowski to the device of Jones.

The motivation would have been to allow insertion of electrodes together with base plates or spacer into the housing at the same time [Col. 2, Lines 57-67, Figure 1].

In claim 2, the welding is by way of heating into high temperature the glass bases 1 and 2 to melt the glass and establish a seal between the tube 5 [Col. 4, Lines 32-35].

Regarding claims 3-4, 8, 12, Kozlowski discloses repeated backfilling and flushing with dry air and argon which would inherently results in the cleanliness claimed [Col. 4, Lines 42-44].

2. Claims 6, 7, 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones in view of Kozlowski as applied to claim 1 above, and further in view of Harada et al. [4317155].

Jones in view Kozlowski discloses the instant claimed invention discussed above except for the lead wires being Dumet.

Harada discloses using Dumet as lead wire [Col. 6, Lines 18-21].

It would have been obvious to one having ordinary skill in the art at the time of the invention to use Dumet wire as taught by Harada to the structure of Jones in view of Kozlowski.

The motivation would have been for using as a lead wire that penetrates glass [Col. 6, Lines 17-20].

3. Claims 13-15 and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones in view of Kozlowski as applied to claim 1 above, and further in view of Zuk [4175277].

Regarding claims 13-14, 17 and 18, Jones in view Kozlowski discloses the instant claimed invention discussed above except for the projected surface comprises a protrusion having a substantially conical shape extending from the broadened tip in a direction of a longitudinal axis of the lead portion; the protruding portion delimiting a conical cavity in the broadened tip.

Zuk discloses such a pattern in Figure 2.

It would have been obvious to one having ordinary skill in the art at the time of the invention to use a protrusion in a conical shape with a delimiting conical cavity in the broadened tip as taught by Zuk to the structure of Jones in view of Kozlowski.

The motivation would have been for the purpose of controlling the gap width [Col. 2, Lines 40-67, Figure 2].

Regarding claims 15 and 19, Jones in view Kozlowski discloses the instant claimed invention discussed above except for the projected surface comprise a semi-spherical protrusion extending from the broadened tip.

Zuk discloses the projected surface comprise a semi-spherical protrusion extending from the broadened tip [see Figure 2].

It would have been obvious to one having ordinary skill in the art at the time of the invention to use a semi-spherical protrusion on the projected surface of the electrode as taught by Zuk in view of Jones and Kozlowski.

The motivation would have been to better direct voltage surge from one electrode to the other [Col. 2, Lines 41-67].

4. Claims 16 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones in view of Kozlowski as applied to claim 1 above, and further in view of Lange et al. [4266260].

Jones in view Kozlowski discloses the instant claimed invention discussed above except for the patterned surface comprises grooves forming grid pattern.

Lange discloses patterned surface comprises grooves forming grid pattern [see Figures 1, 2 and 3].

It would have been obvious to one having ordinary skill in the art at the time of the invention to use patterned surfaces as taught by Lange to the structure of Jones in view of Kozlowski.

The motivation would have been for the purpose of anchoring or good bonding of electrode activating substance [Col. 3, Lines 33-38].

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOSELITO BAISA whose telephone number is (571)272-7132. The examiner can normally be reached on M-F 5:30 am to 2:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin Enad can be reached on (571) 272-1990. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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